

Notice of Allowability

Application No.

09/728,147

Examiner

Tony Mahmoudi

Applicant(s)

NADJ ET AL.

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 28-April-2005.
2. ☒ The allowed claim(s) is/are 1-13.
3. ☒ The drawings filed on 04 March 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.


THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20050511.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


CHARLES RONES
PRIMARY EXAMINER

DETAILED ACTION

Remarks

1. In response to the Amendment filed on 28-April-2005, claims 14 and 15 have been canceled and claims 1 and 4 are amended per applicant's request. Claims 1-13 are pending in the application, of which, claim 1 is presented in independent form.
2. In view of the Examiner's Amendment, authorized by the Attorney of Record, independent claim 1 is further amended by the examiner (details provided below.)

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael L. Gencarella (Attorney of Record) on 11-May-2005 (see enclosed Interview Summary, paper No. 20050511.)

Claim 1 has been amended by the examiner as follows:

1. (Currently Amended) A data structure, comprising:

a root level having a node group, the node group having k number of nodes, each of the k number of nodes sharing a pointer, each of the k number of nodes stored contiguously in memory;

a second level having one supernode, the supernode having k number of node groups, each of the k number of node groups includes k nodes, the k nodes of the supernode being stored contiguously in memory;

a first level memory storing the root level node group; and

a second level memory storing the second level supernode, wherein the first level memory and the second level memory ~~may be accessed~~ are configured to be accessed simultaneously, wherein the pointer references the contiguously stored k nodes of the supernode and each of the first level memory and the second level memory are associated with corresponding comparator blocks, the comparator blocks configured to examine hole counters representing the number of holes in the supernode.

Allowance

4. Claims 1-13 are allowed over the prior art made of record.
5. The following is an examiner's statement of reasons for allowance:

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The applicant's amendment filed on 28-April-2005, and the examiner's amendment authorized by the attorney of record on 11-May-2005 overcome the cited prior art with respect to the independent claims.

The prior art of record, Rathbun (U.S. Patent No. 6,138,123) and Klayman (U.S. patent No. 5,463,389), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

a first level memory storing the root level node group; and
a second level memory storing the second level supernode, wherein the first level memory and the second level memory are configured to be accessed simultaneously, wherein the pointer references the contiguously stored k nodes of the supernode and each of the first level memory and the second level memory are associated with corresponding comparator blocks, the comparator blocks configured to examine hole counters representing the number of holes in the supernode, as recited in independent claim 1.

Claims 2-13 are allowed over the prior art made of record because they are dependents from the allowed independent claim 1.

Conclusion

6. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (571) 272-4078. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (571) 272-4083.

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May 12, 2005



**CHARLES RONES
PRIMARY EXAMINER**